

**UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
OAKLAND DIVISION**

EPIC GAMES, INC.,)	Case No. 4:20-cv-05640-YGR-TSH
)	
Plaintiff, Counter-defendant,)	WRITTEN DIRECT TESTIMONY
)	OF NED S. BARNES, CPA
v.)	
)	The Honorable Yvonne Gonzalez Rogers
APPLE INC.,)	
)	Trial: May 3, 2021
Defendant, Counterclaimant.)	Ex. Expert 2

WRITTEN DIRECT TESTIMONY
OF NED S. BARNES, CPA

CASE No. 4:20-cv-05640-YGR-TSH

REDACTED REDACTED VERSION OF DOCUMENT SOUGHT TO BE SEALED

1. I, Ned Barnes, am a Managing Director with the Berkeley Research Group, a financial and economic consulting firm. I am a Certified Public Accountant and a Certified Fraud Examiner. I have over 25 years of experience as a forensic accountant and an economic consultant analyzing accounting, finance, damages, and valuation issues. As part of my professional practice, I am regularly asked to review and analyze financial statement data for a variety of purposes, including financial analysis related to alleged antitrust issues. I understand that this document provides testimony for use in this litigation as if I were in Court providing testimony in person, and that my testimony is given under penalty of perjury.

2. I was retained by counsel for Epic Games to research and calculate the App Store's operating margin and operating margin percentage, which in general measure profitability by subtracting costs from revenues. In my expert report dated February 16, 2021, using Apple testimony and financial information available to me at that time, I calculated the App Store's operating margin percentage to be 79.6% for each of FY2019 and FY2018. I understand that the day before my expert report was due, Apple produced additional documents that I obtained and reviewed after submitting my report. These documents show that Apple calculated its own operating margin percentage for the App Store to be 77.8% for FY2019 and 74.9% for FY2018. These calculations, which were prepared by Apple's Corporate Financial Planning and Analysis ("FP&A") group and produced from the files of Apple CEO Tim Cook, are consistent with and confirm the reasonableness of the calculations presented in my expert report. They also refute criticisms of my report proffered by certain Apple expert witnesses that it is not possible to calculate reliably or usefully the operating margins of the App Store. (*See* pp. 2-12.)

3. I was also asked to research and calculate the operating margins for other online marketplaces selected according to parameters provided to me by Dr. David Evans, one of Epic's experts in antitrust economics. Dr. Evans defined an online marketplace as an e-commerce platform on which sellers/merchants connect with buyers/consumers in transactions for the sale of goods. Dr. Evans asked me to identify firms that are principally in the business of operating online marketplaces or that maintain discrete operating segments that generate significant revenues from operating online marketplaces. Applying those parameters to my independent research of publicly available information, I identified five online marketplace firms or firms with business segments reflecting online marketplace operations that publicly report sufficiently separate financial results for those operations and that have had profitable online marketplace operations in at least one of the last five years. (*See* pp. 12-13.) I calculated the operating margin percentages of these online marketplaces as follows:

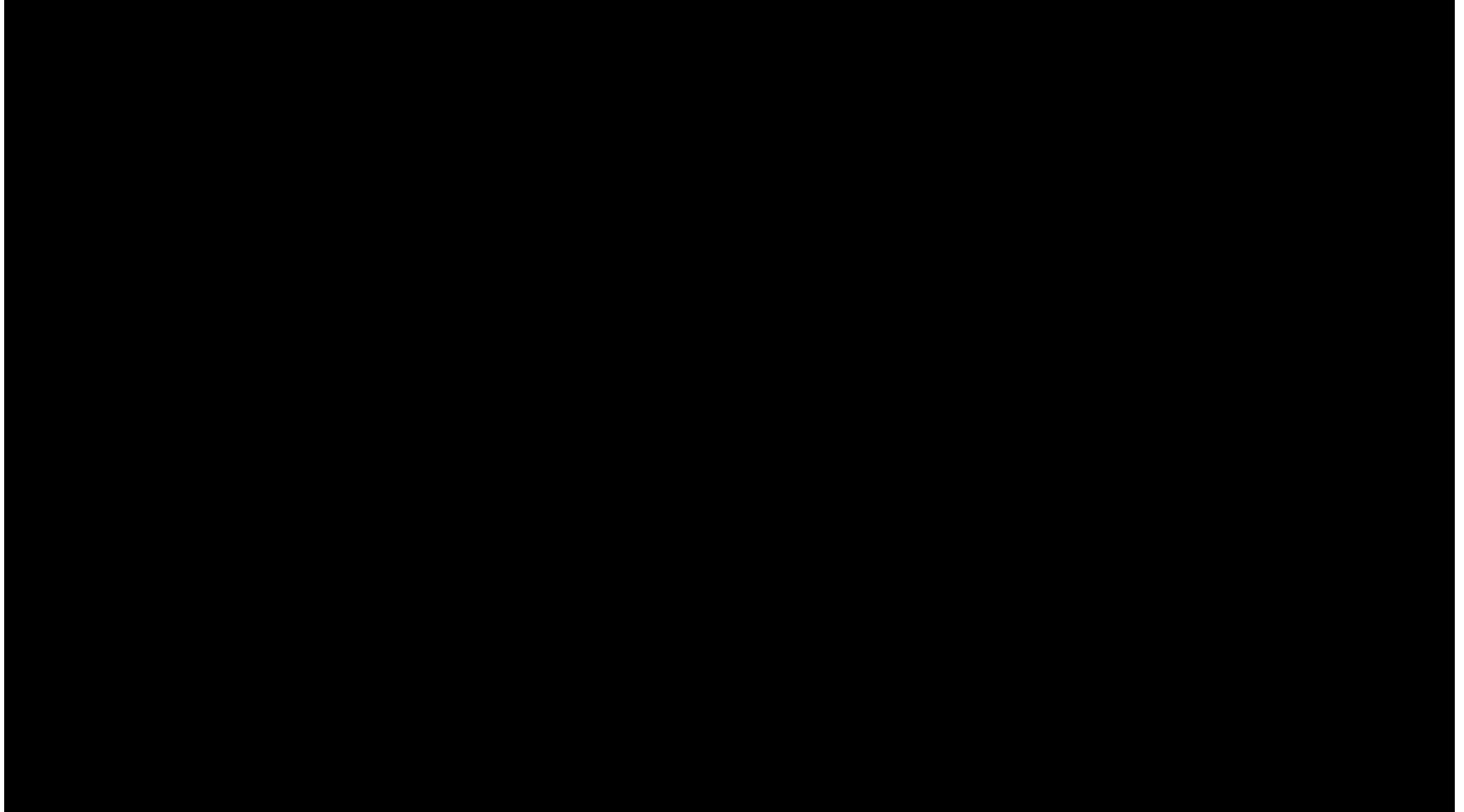
	Operating Margin Percentage Select Pure Online Marketplaces						
	2013	2014	2015	2016	2017	2018	2019
eBay	29.7%	28.2%	25.6%	25.0%	22.8%	20.7%	21.5%
Etsy	0.6%	-3.2%	-0.7%	4.8%	2.7%	12.4%	10.8%
Alibaba (Core Commerce segment)	NR	49.2%	47.4%	50.5%	44.3%	29.9%	29.4%
MercadoLibre	32.5%	21.6%	21.4%	21.4%	11.7%	-4.8%	-6.7%
Rakuten (Internet Services segment)	15.1%	17.5%	16.6%	8.1%	13.3%	14.3%	10.1%

Sources: PX1006; PX1002 (summarizing eBay Form 10-K for FY ended December 31, 2015-2019); PX1004 (summarizing Etsy Form 10-K for the FY ended December 31, 2015-2019); PX1008 (summarizing Alibaba Form 20-F for the FY ended March 31, 2017-2020); PX1005 (summarizing MercadoLibre Form 10-K for the FY ended December 31, 2015-2019); PX1007 (summarizing Rakuten Earnings Releases for the FY ended December 31, 2014-2019). Data reported for Alibaba are for the FY ended March 31 of the year following each respective calendar year.

I. Financial Analysis of Apple App Store Operating Margins

4. Operating margin measures the profitability of a business or business segment by calculating the excess of revenue over costs. It is defined as net revenue (or sales) minus both (i) costs of goods sold (“COGS”) and (ii) operating expenses (“OPEX”) such as selling, general and administrative expenses, and research and development (“R&D”) expenses. Operating margin percentage is calculated by dividing the nominal amount of operating margin dollars by the nominal amount of net revenue. In order to calculate operating margins for the App Store, I reviewed profit and loss (“P&L”) statements specific to the App Store included in slide presentations to executives with authority over the App Store. These documents reported estimated operating margins and operating margin percentages. However, Mr. Mark Rollins, an Apple employee who was designated under Rule 30(b)(6) to testify about Apple’s practices with respect to tracking the financial metrics of the App Store, suggested that these documents did not include all expenses specifically related to the App Store. As a result, as described below, I performed additional calculations accounting for these purportedly excluded costs to arrive at an operating margin percentage for the App Store of 79.6% for each of FY2019 and FY2018.

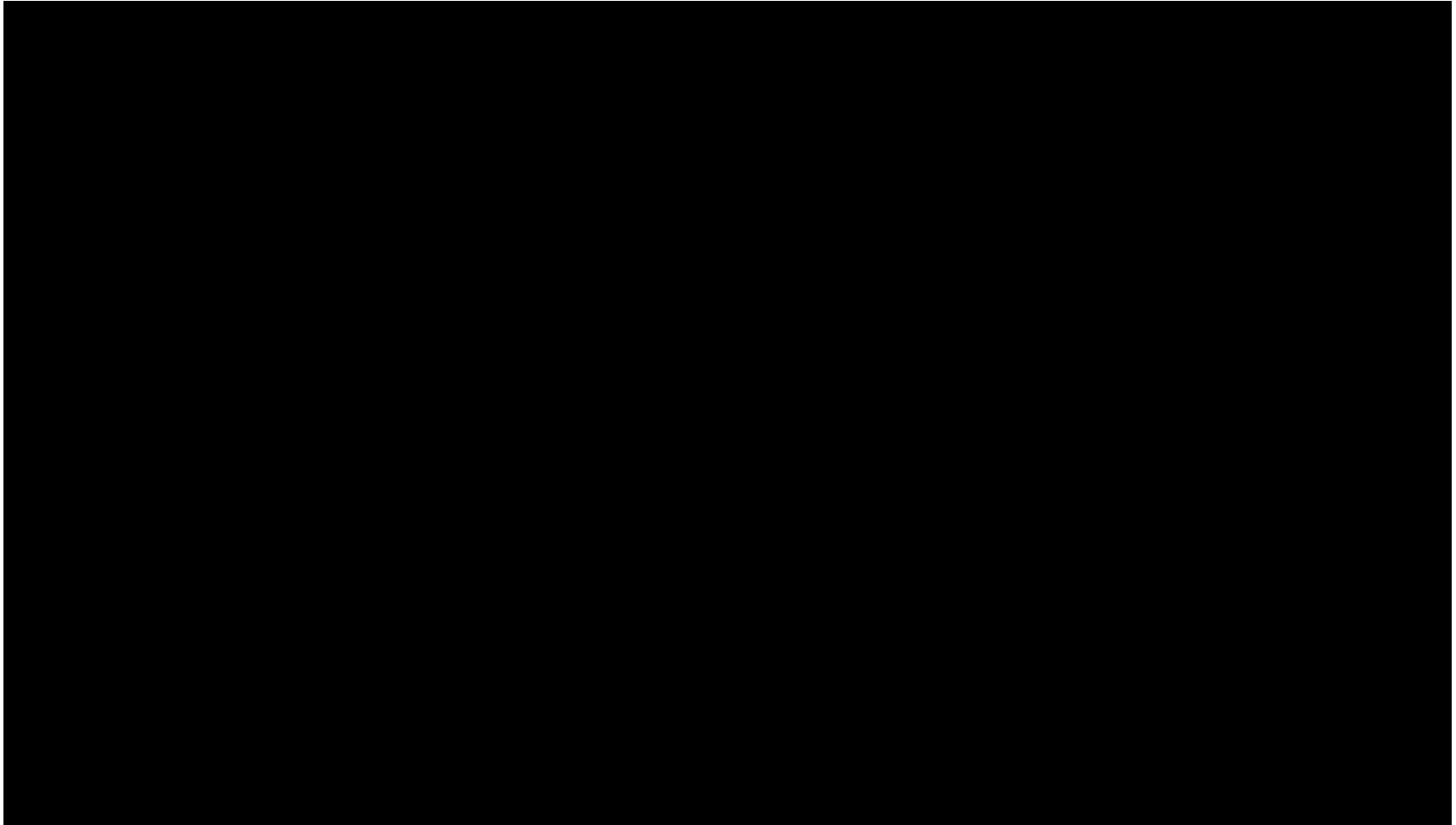
5. [REDACTED]



6. As referenced in the slide above, OCOGS means “Other Costs of Goods Sold” and includes both direct costs and indirect or shared costs that are allocated to the App Store. (PX602.155-57.) Direct OCOGS associated with the App Store include, among other items, design costs, content costs, and localization costs (*i.e.*, “the cost[s] of doing business around the world and trying to be as local as possible”). (PX602.155-57.) Allocated OCOGS associated with the App Store include costs such as headcount, shared corporate services, and facilities. (PX602.155.) The OPEX identified in this slide deck as associated with the App Store include costs such as credit card fees, affiliate fees, and creative services. (PX602.158.)

7. The presentation described above specifically discusses certain corporate-level expenses such as costs associated with Internet Services and Technology (“IS&T” or Apple’s IT department (Rollins Dep. 152:24-153:15)), as well as other line items generally considered corporate or administrative in nature, such as depreciation and amortization of intangible assets. (PX602.154-58.) Based on my professional experience, the inclusion of these corporate and general expense items in these P&L statements that were presented to Apple executives is consistent with the fact that these statements were prepared on a fully burdened basis. In accounting and in my testimony, the term “fully burdened” describes the determination of operating margins that includes all identifiable direct costs, as well as an allocation of indirect or shared costs from which the relevant business or business segment derives benefit.

8. Another document titled “App Store Business Management FY20 Overview” was part of an October 2019 presentation to provide Apple executives “an update on the App Store”. (PX608.1.) This presentation included an App Store P&L statement for FY2019 (year ended September 2019), as well as a projected P&L statement for FY2020. [REDACTED]



9. I also obtained and reviewed “Apps” P&L statements for FY2013 through FY2015 that were requested by Apple CFO Luca Maestri and distributed to Eddy Cue. (PX609; PX610.) [REDACTED]

[REDACTED] The term “contribution margin” generally is used to describe operating profitability before certain fixed (or “sunk”) costs are attributed to a business or business unit. However, Mr. Rollins, Apple’s 30(b)(6) witness, could not identify any specific fixed costs that were excluded from these P&L statements. (Rollins Dep. 262:21-263:7, 266:20-267:1.)

10. At his deposition, Mr. Rollins suggested that the App Store P&L statements for FY2018 and FY2019 referenced above do not include all expenses related to the App Store, and do not reflect a fully burdened allocation of corporate costs. (Rollins Dep. 59:2-16.) [REDACTED]

11. I conducted an analysis to conservatively estimate the additional App Store expenses identified by Mr. Rollins. Specifically, I performed two adjustments to the operating margins for FY2019 and FY2018 reflected in the App Store P&L statements. First, I added the three categories of specific expenses that Mr. Rollins claims were omitted, using separate documents produced by Apple tracking those expenses. (Table 2, steps [C]-[E].) [REDACTED]

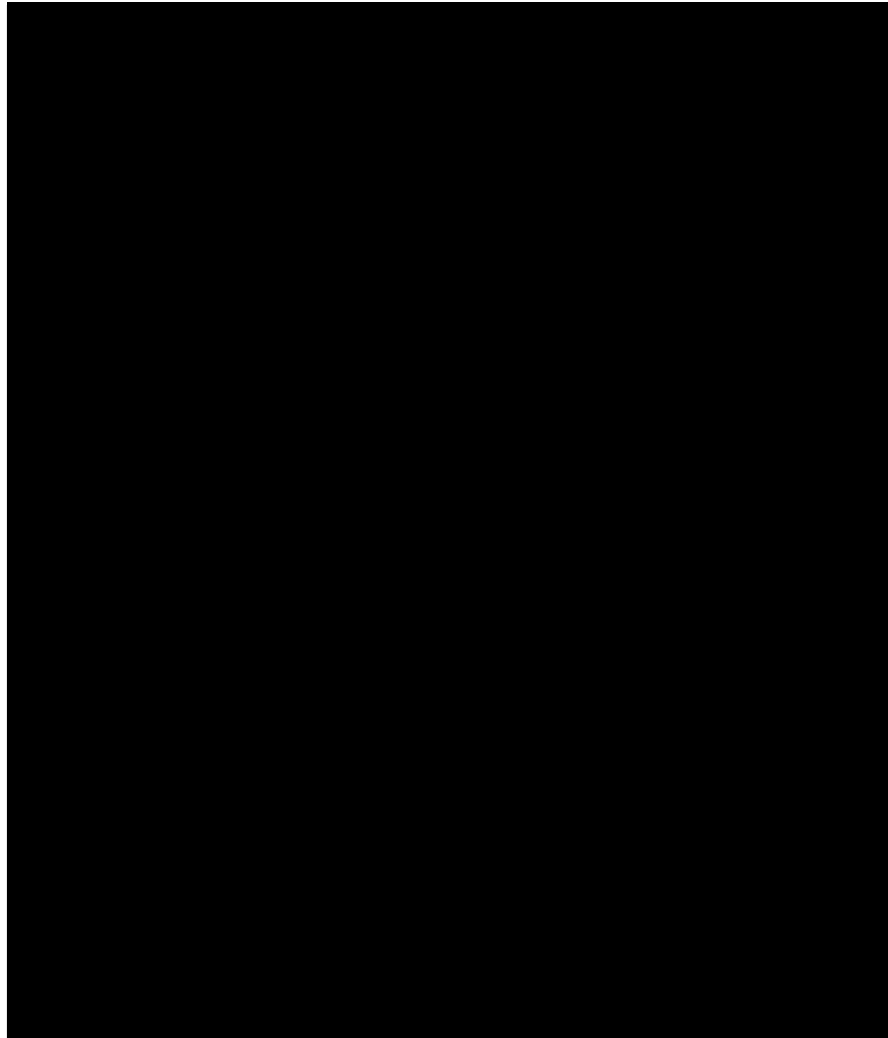
12. Second, I estimated an additional amount of general corporate expenses that Mr. Rollins claims were not allocated to the App Store P&Ls. In its public financial statements, Apple separately reports net sales and gross margins for certain product categories (iPhone, iPad, Mac, etc.) and its “Services” category. (PX2668.23-25.) [REDACTED]

Accordingly, I utilized a revenue-based allocation methodology to estimate additional OPEX for the App Store. [REDACTED]



Table 1	
Estimated Allocation of Additional OPEX to App Store Based on Fully Burdened OPEX Allocation to Services LOB (S millions) 2018-2019	

13. These adjustments yielded operating margins for the App Store of 79.6% in each of FY2019 and FY2018:



14. After I submitted my expert report on February 16, 2021, I was made aware of additional Apple business documents that had been produced by Apple on February 15, 2021. Epic's counsel has informed me that Apple produced more than 260,000 documents on February 15 alone, and that none of those documents would have been available for review until after they had been processed. In particular, after receiving Apple's expert's rebuttal reports, I reviewed three documents prepared by Apple's Corporate FP&A group that contain profitability analyses specific to the App Store. This was materially new information because Apple and its managers had stated that Apple does not maintain P&L statements for the App Store.¹ After I

¹ Dec. 15, 2020 Discovery Hearing (ECF No. 212-2) at 67-68 (Apple "does not maintain separate numbers for the App Store"; "costs are not allocated or maintained by business unit . . . [t]here aren't App Store costs"); Apple's Response to Epic's Interrogatory No. 10 ("Apple does not, in the ordinary course of business, maintain profit and loss ledgers for the App Store"); Cook Dep. 163:20-23, 245:16-18; Schiller Dep. 358:5-7; Fischer Dep. 155:6-10; Rollins Dep. 83:16-23.

had an opportunity to review and analyze the new documents in light of certain criticisms in Apple's rebuttal reports, they were included on a supplemental list of materials relied upon that was sent to Apple on March 25, 2021, and I discussed these additional documents and the conclusions I had been able to draw from them at my deposition on March 26, 2021.

15. These documents confirm my conclusions for at least three reasons.

16. *First,* [REDACTED]

[REDACTED]

[REDACTED]

17. *Second,* these documents contradict rebuttal opinions proffered by Drs. Hitt, LaFontaine, and Schmalensee. According to Dr. Hitt, my analysis "misrepresents Apple's business and its relevant economic margins" because "Apple does not view the App Store as a discrete business unit, and does not attempt to create a separate income statement for the App Store that reflects a fully burdened operating margin". (Hitt Rebuttal ¶¶ 61, 382.) According to Dr. Schmalensee, my analysis is based on "seriously incomplete information on which categories of costs are included" because "Apple does not make . . . allocations of joint costs to individual lines of business". (Schmalensee Rebuttal ¶¶ 8(vii)(c), 171.) According to Dr. LaFontaine, my calculations are "inappropriate" because "Apple does not use (or generate) information on fully-burdened margins for the App Store". (LaFontaine Rebuttal ¶ 217.) These documents demonstrate that the criticisms levied by Drs. Hitt, LaFontaine, and Schmalensee are incorrect and misplaced. Moreover, these documents confirm that allocations of general and corporate expenses to the App Store and other Apple business centers—similar to the allocations that I

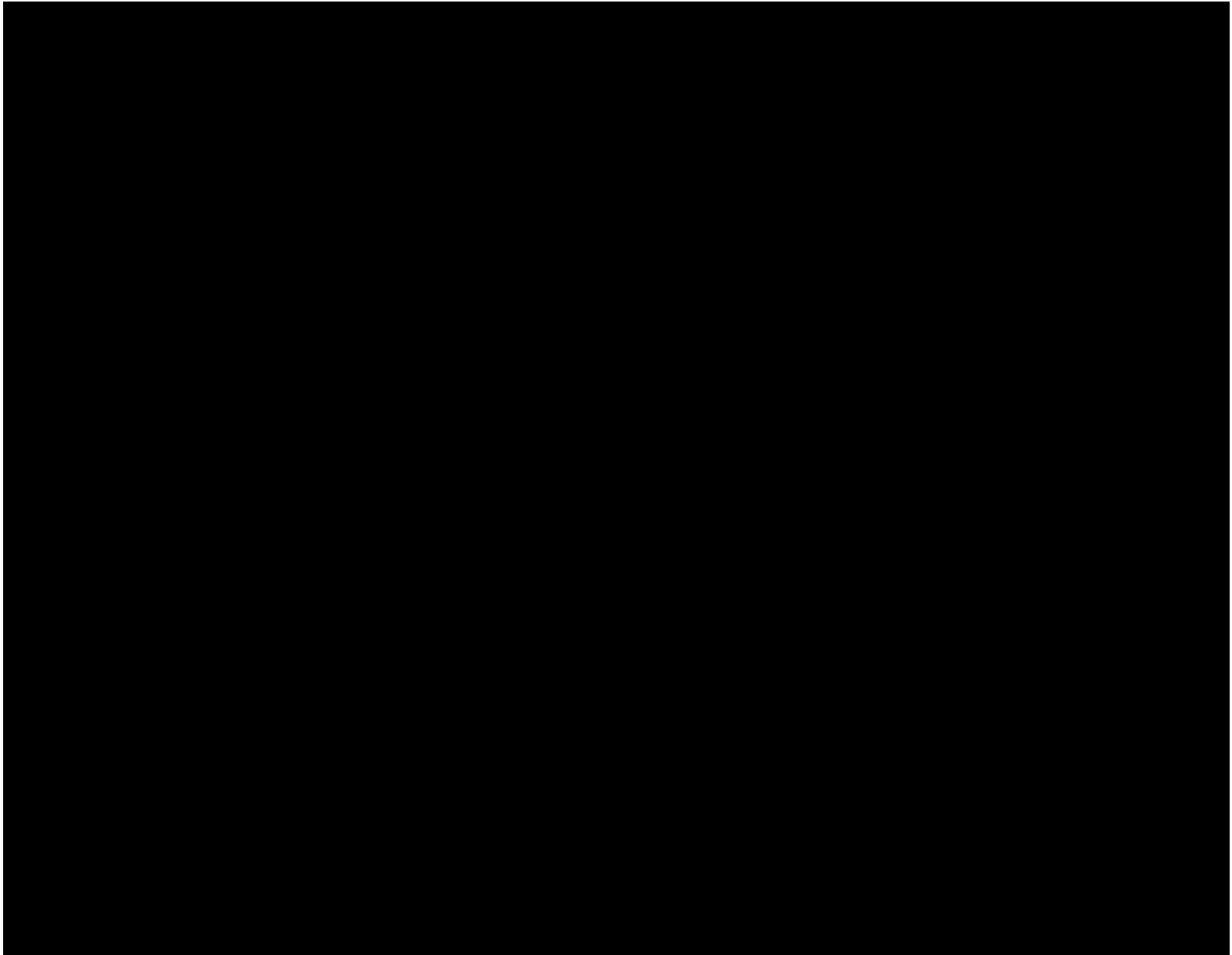
conducted in my report—are performed during the course of business and utilized by Apple executives, including the CEO and CFO.

18. These documents indicate that Apple employs a systematic method for allocating operating expenses to individual profit centers, including the App Store. Using these documents, I was able to reconcile the individual profit center allocations of expenses and operating profits to Apple’s financial statements contained in its filings with the Securities and Exchange Commission. [REDACTED]

[REDACTED] Further, the individual “Services” business units—*e.g.*, App Store, Licensing, AppleCare—reconcile to the total amount reported in these documents for total Services for the same P&L line items. This confirms that, in preparing these documents, Apple’s Corporate FP&A group has fully allocated every dollar of cost reported by the company as a whole to individual business units, including the App Store. From a financial accounting perspective, this is the definition of a fully allocated or fully burdened P&L statement.

[REDACTED]

19. *Third*, these documents show that Apple, during the course of business, determines the amount of R&D and other categories of OPEX that are direct, shared, or allocated to individual profit centers, including the App Store. According to Dr. LaFontaine, my analysis is flawed because it “allocates costs in a way that does not accurately account for how much the App Store benefits from certain expenses, such as research and development (R&D)”. (LaFontaine Rebuttal ¶ 218.) According to Dr. Schmalensee, my calculations “fail to account for the likelihood that different costs and expenses affect Apple’s various lines of business differently. For example, if most of Apple’s R&D is devoted to the App Store, then a revenue-based allocation of R&D would underestimate the expenses attributable to the App Store”. (Schmalensee Rebuttal ¶ 173.) Again, Apple’s own business documents invalidate these criticisms. The documents indicate that Apple does not assign a disproportionately large amount of Apple’s total R&D to the App Store. [REDACTED]



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20.

21.

II. Financial Analysis of Online Marketplace Operations

22. I also was asked by Dr. David Evans to research and identify firms that are principally in the business of operating online marketplaces or that maintain discrete operating segments that generate significant revenues from operating online marketplaces. Dr. Evans defined an online marketplace to be an e-commerce platform on which sellers/merchants connect with buyers/consumers in transactions for the sale of goods. My research and calculations returned the following results:

Table 4

	Operating Margin Percentage Select Pure Online Marketplaces						
	2013	2014	2015	2016	2017	2018	2019
eBay	29.7%	28.2%	25.6%	25.0%	22.8%	20.7%	21.5%
Etsy	0.6%	-3.2%	-0.7%	4.8%	2.7%	12.4%	10.8%
Alibaba (Core Commerce segment)	NR	49.2%	47.4%	50.5%	44.3%	29.9%	29.4%
MercadoLibre	32.5%	21.6%	21.4%	21.4%	11.7%	-4.8%	-6.7%
Rakuten (Internet Services segment)	15.1%	17.5%	16.6%	8.1%	13.3%	14.3%	10.1%

Sources: PX1006; PX1002 (summarizing eBay Form 10-K for FY ended December 31, 2015-2019); PX1004 (summarizing Etsy Form 10-K for the FY ended December 31, 2015-2019); PX1008 (summarizing Alibaba Form 20-F for the FY ended March 31, 2017-2020); PX1005 (summarizing MercadoLibre Form 10-K for the FY ended December 31, 2015-2019); PX1007 (summarizing Rakuten Earnings Releases for the FY ended December 31, 2014-2019). Data reported for Alibaba are for the FY ended March 31 of the year following each respective calendar year.

23. To identify relevant firms, I relied on independent research of industry sources that professionals in my field routinely rely on as a source of market data. Those sources included the “Top 100 Online Marketplaces Database” maintained by Digital Commerce 360. I utilized the following criteria to identify online marketplace firms: (i) primarily generate online marketplace revenues from commissions and fees earned from transactions involving third-party merchants rather than as a direct seller of goods; (ii) publicly reported financial statements; (iii) at least five years of available financial statements; (iv) marketplace activities sufficiently distinguishable in operating results; and (v) profitable marketplace operations in at least one year of the last five years. I then obtained public earnings releases or Form 10-K (or 20-F) Annual Reports that these firms filed with the SEC. Professionals in my field routinely rely on such records to determine the financial performance of regulated, publicly traded companies.

24. A number of firms with operations that facilitate transactions for apps or in-app purchases, including the Google Play Store, Sony PlayStation Store, Microsoft Store, Samsung Galaxy Store, and Nintendo eShop, do not meet the criteria because they do not report sufficiently separate financial results for their app store activities.

25. Based on the criteria above, I identified five online marketplace firms or firms with business segments reflecting online marketplace operations: eBay Inc, Etsy, Rakuten Ichiba, MercadoLibre, and Alibaba. For purposes of my analysis, I attempted to identify and measure the performance related to each firm’s online marketplace businesses on a fully burdened P&L statement basis, consistent with the manner in which I analyzed operating [REDACTED]

26. Table 4 summarizes operating margin percentages for the online marketplaces discussed above. The operating margin percentages reflected in Table 4 are based on the net operating income (before interest and taxes) at the company level for firms that are principally or exclusively engaged in the operation of an online marketplace (including business activities complementary to an online marketplace such as logistics/fulfillment/delivery, electronic payment processing, and market-based advertising).

27. Alibaba and Rakuten have operating business segments that are not directly related to or ancillary to the operation of online marketplaces. For these firms, the operating margin percentage calculations reflected in Table 4 are based on the reported segment operations that most closely reflect the online marketplace operations (and complementary business activities) of these firms. For Rakuten and Alibaba, reported unallocated costs (principally corporate expenses that were not allocated to individual business segments in each firm’s public filings) were allocated based on the proportional amount of revenue reported for each of the firm’s operating segments. [REDACTED]

[REDACTED] These allocations were applied to estimate a fully burdened P&L statement and associated operating income percentage and to maintain comparability both with other firms that are primarily engaged in online marketplace businesses (eBay, Etsy, MercadoLibre), as well as the App Store, which I have analyzed on a similar fully burdened P&L basis.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct and that I executed this written direct testimony on April 20, 2021, in Sterling, Virginia.

WORD COUNT: 3,472



Ned S. Barnes